

REMARKS/ARGUMENTS

Reconsideration of the above-identified application respectfully requested.

The amendments to claim 1 define the step of "associating" as described in the application, for example, at p. 6, ll. 3-5; and p. 8, ll. 11-14. Thus, claim 1 now calls for the composition to be applied as a layer to the structure to be protected, whether such layer can be termed as "an adhesive, caulk, sealant, or other designation" (application at p. 6, l. 15). Other claims, including withdrawn claims, have been cancelled in order to materially advance prosecution of this application.

The Obviousness Type Double Patenting Rejection

Claims 1, 2, 4-17, 19, and 23 stand provisionally rejected on the ground of non-statutory obviousness-type double patenting over claims 1-20 of Applicants' copending Application serial number 10/816,095. Although Applicants are in disagreement with the Examiner on this ground of rejection, in order to materially advance prosecution of this application, Applicants hereby submit a terminal disclaimer and Rule 3.73(b) Certification. This ground of rejection now is moot.

The Art Rejection

Claims 1-35 stand finally rejected under the provisions of 35 U.S.C. § 103(a) as being unpatentable over Kodama (U.S. Patent No. 5,747,510) and Van Voris (U.S. Patent No. 5,801,194) in view of Knudson (U.S. Patent No. 4,849,006) and Hackh's (Hackh's Chemical Dictionary, p. 168, 1969).

Applicants traverse the rejections of the claim and the grounds therefor.

The Kodama Citation

The Kodama patent (5,747,519) is a soil treatment patent. The present invention is not a soil treatment invention; but, rather, the invention pertains to materials that do not release significant amounts of pest control agent into the soil environment. Because of this feature, the products have increased longevity, stability, reduced environmental effects, and lower cost. The statements in col. 1, lines 37-47, pertain to the objects of the invention, not the summary or details of the invention. These statements merely endorse soil treatment in addition to applying a layer of Applicants' composition to a structure, and no more.

Kodama, at col. 4, lines 5-9, lists some materials that are to be used as "fixing agents, dispersing agents, thickening agents, and bonding agents". Significantly, these materials are

not conventional "polymers" and are distinctly different from the polymers disclosed in the present application, because the two procedures use materials for different functions. Kodama uses his materials to stick his pesticide to soil particles (*i.e.*, to fix the pesticide to the soil, see, *Hackh's Chemical Dictionary*, p. 269, definition of "fixed", 1969 edition), whereas Applicants use their polymers to make physical barriers (for example, layers, coatings, caulks) and to adhere particles to the barrier material. Kodama's barrier is a layer of treated soil. Applicants "apply a layer" their composition to a structure to be protected, *viz.*:

The inventive composition forms a continuous or discontinuous layer thereof associated with the substrate to be protected. Preferably, then, the inventive composition is "film-forming" in that it forms a film, which preferably is continuous, recognizing that discontinuous films may provide adequate protection against certain pest species under certain circumstances. The inventive coating composition also can contain adhesive ingredients (*e.g.*, low Tg resins, tackifiers, *etc.*) that render it a conventional "adhesive" in order to adhere well to certain structures and to even join two structural surfaces together. Moreover, by careful formulation, the inventive composition may exhibit the thixotropy and adhesive characteristics to render it a caulk or sealant and, thus, protect cracks in structures. Thus, the term "composition" is to be construed broadly for present purposes in that the inventive pest species barrier composition may perform as a coating on the structure to be protected even if it conventionally also may termed an adhesive, caulk, sealant, or other designation.

Application @ p. 6, ll. 3-15 (emphasis supplied).

In no sense of the term "composition", as defined by Applicants, *e.g.*, a coating, can Kodama's materials (col. 4, ll. 5-9) be read to teach Applicants' compositions. Thus, Kodama fails to teach Applicant' use of a polymer system to form their "composition" and fails to "apply a layer of" the composition to a structure, as such terms are defined in the present application and the claims under examination (see, *Phillips v. AWH Corporation*, ___ F.3d ___, 75 U.S.P.Q.2d 1321, Fed. Cir. 2005).

The Van Voris Citation

Van Voris proposes a controlled release device formed from (a) a low volatility insecticide mixed with a high or medium density polymer and (b) a higher volatility insecticide mixed with a polymer having a low density. Use of carbon black to form "a friable mixture of carbon black and insecticide" (see, for example, claim 2) also is proposed. Applicants' found the release rate of Van Voris to be too rapid for their purposes. Lacking in Van Voris is the use of colloidal clay in general, much less an exfoliated clay, and applying a layer of the composition

to a structure. Many of Applicants' polymers would be unsuitable for Van Voris in view of the requirement to use a mixture of different density polymers.

The Knudson Citation

Knudson proposes to contact organoclay aggregates with a pesticide (Fig. 1, col. 4, ll. 31, *et seq.*). The pesticide-swollen organoclay, then, is dried and released to the environment. Col. 5, lines 47-60, indicate that Knudson wants the bare product with no other protectants, release rate modulators, *etc.*, included. In terms of the claims under examination, Knudson distinctly teaches away from the use of "a polymer component" [claim 1, element (a)(i)].

While at first blush it would appear that Knudson proposes the use of the same clay material as claimed by Applicant's, this is distinctly not the case. Fig. 1 of Knudson and the text of the examples show that Knudson's sorption procedure does not include the key exfoliation step required for the longevity attainable with the Applicants' procedure. Knudson specifically refers to Beall, U.S. Patent No. 4,549,966, which does not reveal exfoliation. Thus, Knudson's active/organoclay has a different chemical structure from the Applicants' active/organoclay. Knudson refers to his product as an aggregate (see, Fig. 1). Applicants start with the aggregate and convert it to the exfoliated form (see, for example, the present application at p. 8, l. 22 bridging p. 9, l. 7).

Thus, Knudson fails to show use of Applicants' "polymer component" and fails to use an "exfoliated colloidal clay", as recited in the claims (see, *Phillips v. AWH Corporation, ibid.*).

Hackh's

Even though the rejection of claims includes "Hackh's", Applicants cannot find this citation made of record, nor any mention of it in the text of the rejection. Since page 168 was supplied and the term "colloid" is defined thereat, Applicants assume that the Examiner relies on this definition in his claim rejections. Insofar as this citation supplies the definition of "colloid", Applicants have no disagreement. Applicants would only state that the colloidal clays or nanoclays of interest also are exfoliated and not merely are colloidal.

The Kodama/Van Voris/Knudson Rejection

Wood and wood products utilized in a variety of construction applications are frequently structurally degraded by the action of termites, ants, other boring insects, and wood decaying microorganisms. Typically, these wood degrading and decaying organisms migrate to wood structures via the surrounding soil or water. This migration may occur whether the structures rest upon concrete foundations, such as in wooden building construction; are in direct contact with

the soil, for example fence posts, utility poles, railroad cross-ties, wooden supports, and like structures; or are in the water, such as boats, piers, pier pilings, wooden docks, or other supports. Wood and wood-containing products include, *inter alia*, glued wood products such as, for example, plywood, particleboard, oriented strand board (OSB), medium density fiberboard (MDF), laminated veneer lumber (LVL), laminated beams, and a variety of other engineered wood products. Paper products (especially paperboard and kraft paper) also are subject to degradation by organisms that attack wood. Outdoor furniture also is subject to wood degrading and decaying organisms. In the marine context (including for example, pleasure and commercial craft for use on lakes, rivers, and oceans), the structures additionally may be manufactured from fiberglass, various plastics, metals, ceramics, and other materials.

Application at p. 1, l. 18 bridging p. 2, l. 3.

The Examiner believes it obvious to make a long-term protection barrier according to Kodama and Van Voris, modified to optimize protection by utilizing a colloidal barrier of Knudson.

The shortcomings of this art combination include that Kodama does not show Applicants' "compositions" or "exfoliated colloidal clays" or the "applying a layer" of Applicants' composition containing "beads" to a structure (as such terms are defined in the present application; see, *Phillips v. AWH Corporation*, *ibid* also). Van Voris also fails to show Applicants' "exfoliated colloidal clays", but rather shows "friable" carbon black particles. Van Voris also does not disclose "polymers" where their purpose is to retard the release of pest control agent. Instead, Van Voris expressly teaches the large and quick initial release of pest control agent. Finally, Knudson also fails to teach Applicants' "compositions" or "exfoliated colloidal clays" or the "applying a layer" of Applicants' composition containing "beads" to a structure. This art combination, then teaches the use non-exfoliated colloidal clays using Kodama's fixing agents (or perhaps Van Voris' density defined polymers). Regardless, such combination fails to render obvious the claims under examination.

Conclusion

In view of the amendments and remarks submitted herewith, allowance of the claims and passage to issue of this application respectfully is requested.

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Respectfully submitted,



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